

# RS501 THRU RS507

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 5.0A

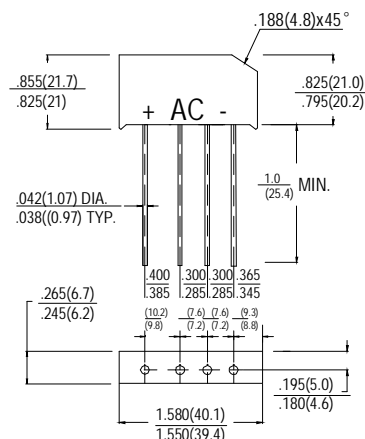
### FEATURES

- Ideal for printed circuit board
- Surge overload ratings-150 Amperes

### MECHANICAL DATA

- **Case:** plastic encapsulation
- **Epoxy:** UL 94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** As marked
- **Mounting position:** Any
- **Weight:** 2.74 grams

### RS-5



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	RS501	RS502	RS503	RS504	RS505	RS506	RS507	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	46	88	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward rectified Output Current at $T_A=75^\circ\text{C}$	$I_o$	5.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150							A
Maximum Forward Voltage Drop per element at 2.5A DC	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@ $T_A=25^\circ\text{C}$	10							$\mu\text{A}$
	@ $T_A=100^\circ\text{C}$	500							
$I^2t$ Rating for Fusing ( $t<8.3\text{ms}$ )	$I^2t$	10							$\text{A}^2\text{S}$
Typical Junction Capacitance (Note 1)	$C_J$	15							pF

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.47x0.47"(12x12mm) copper pads